STATE OF MARYLAND

DHMH

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May 11, 2012

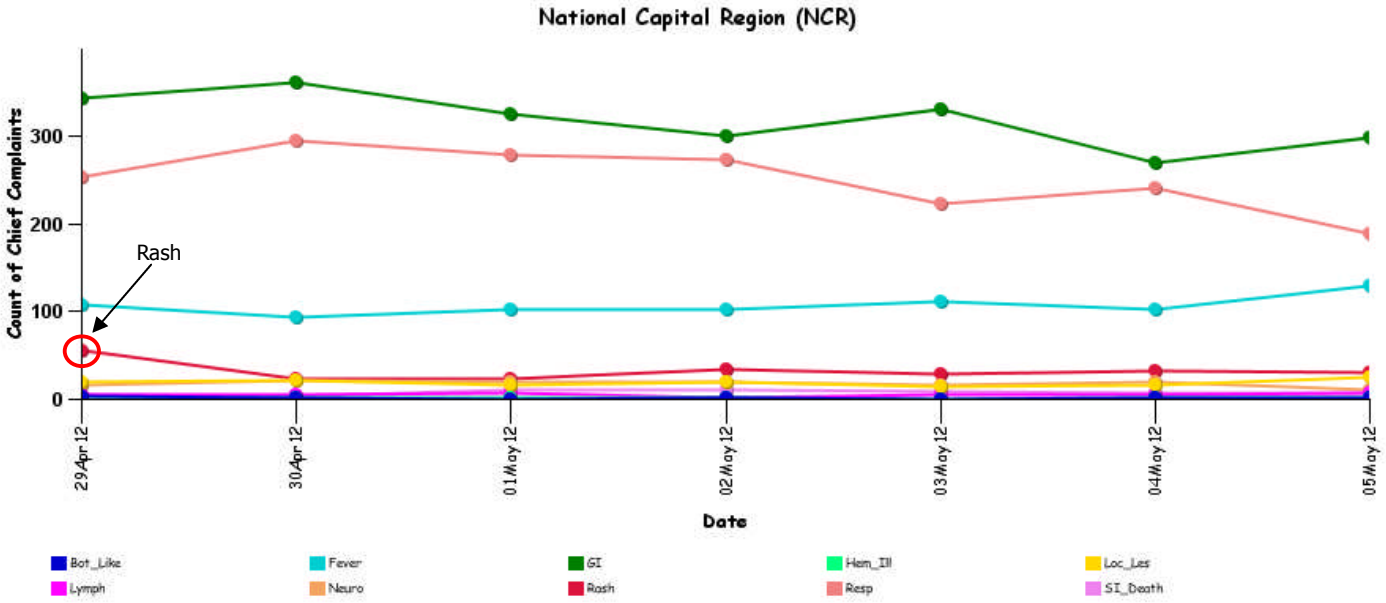
Public Health & Emergency Preparedness Bulletin: # 2012:18
Reporting for the week ending 05/05/12 (MMWR Week #18)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

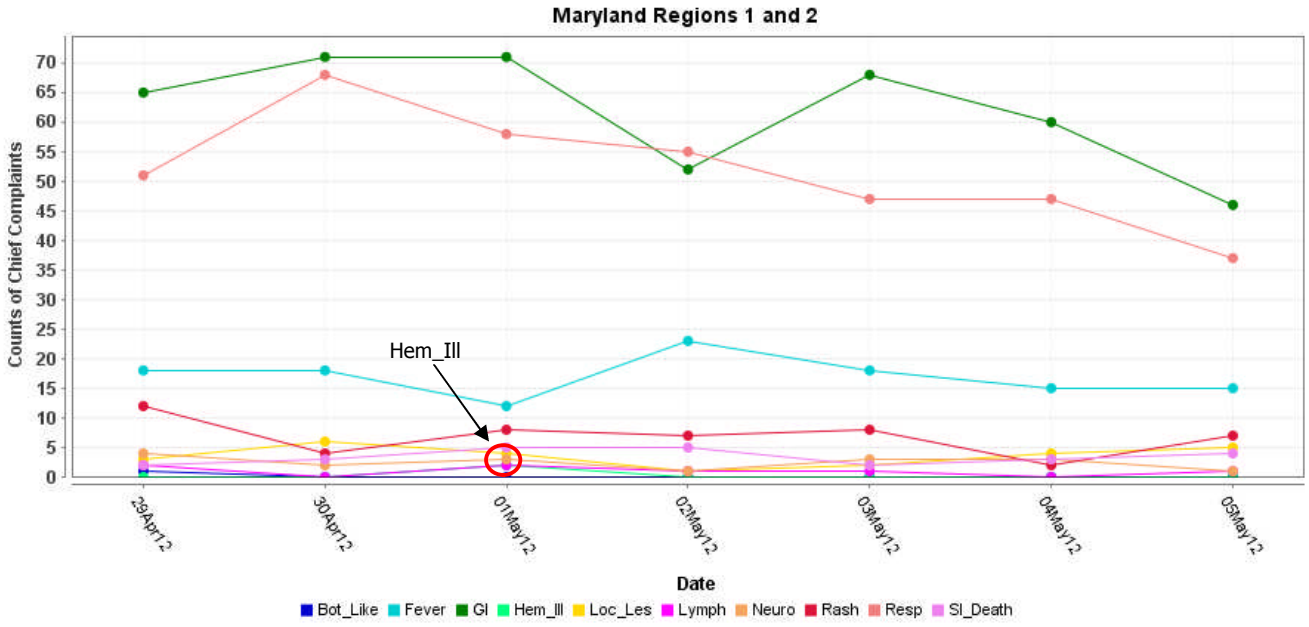
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

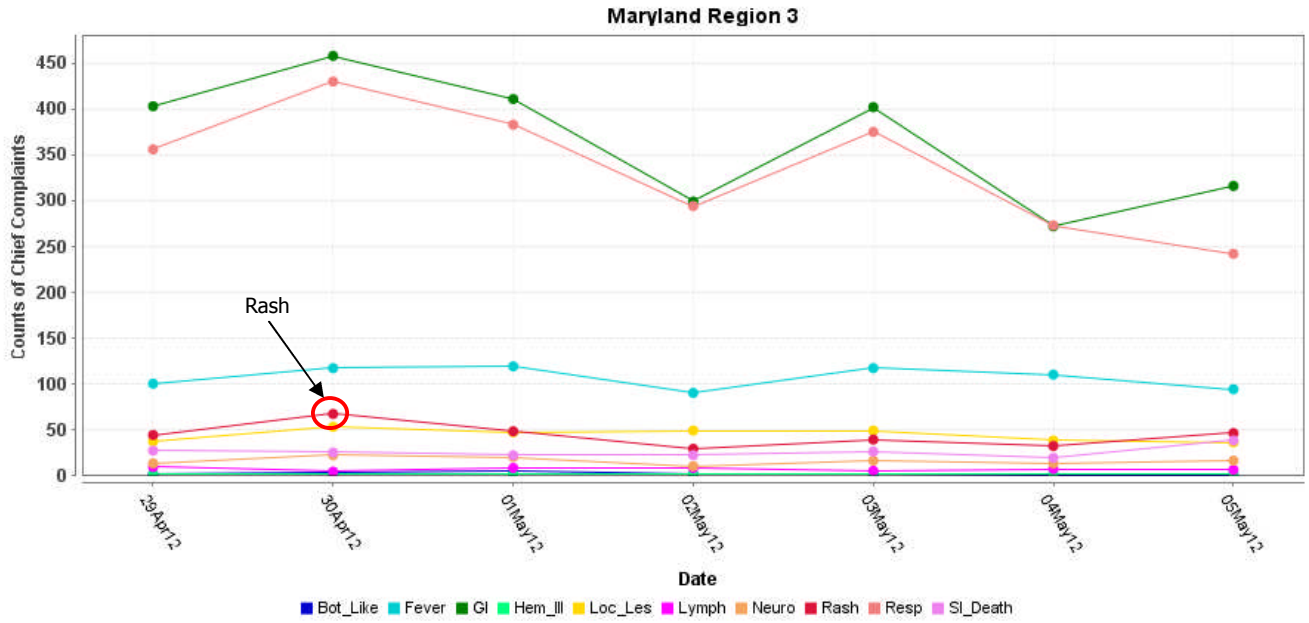


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

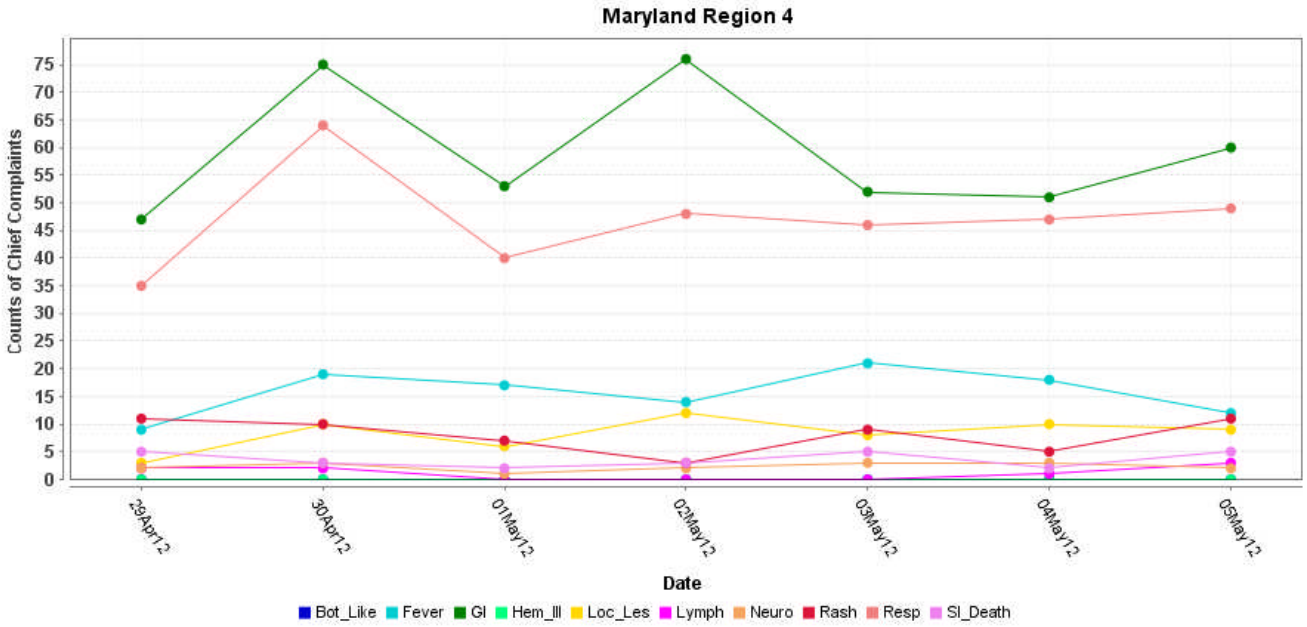
MARYLAND ESSENCE:



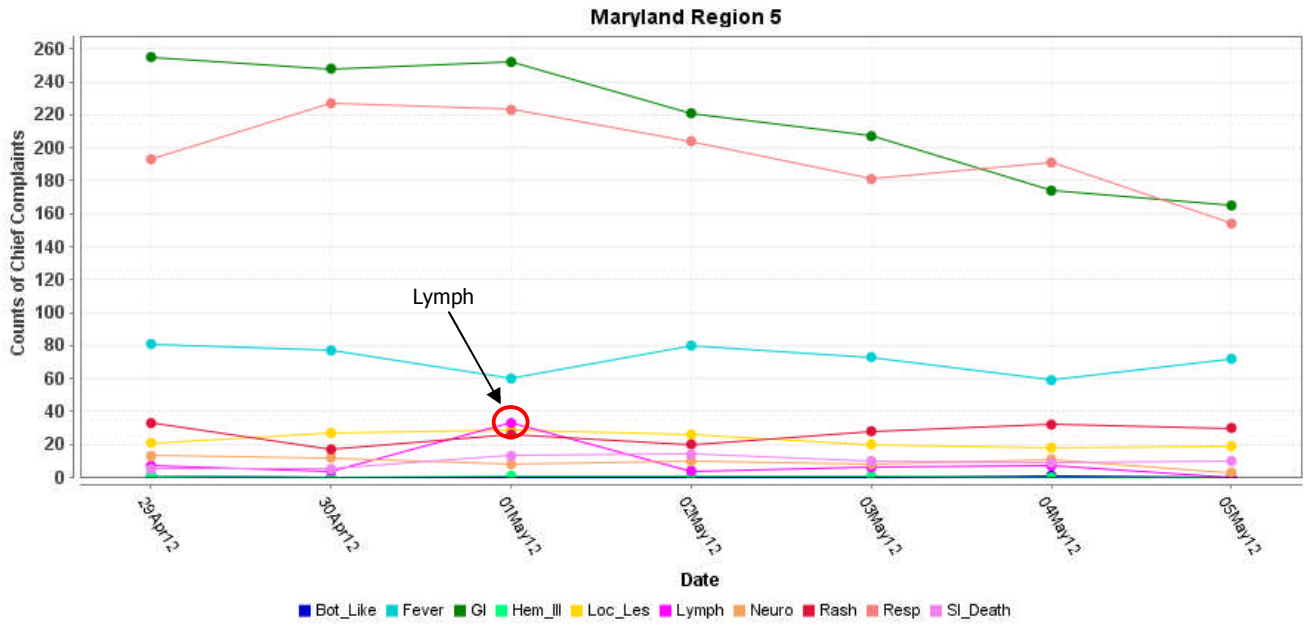
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



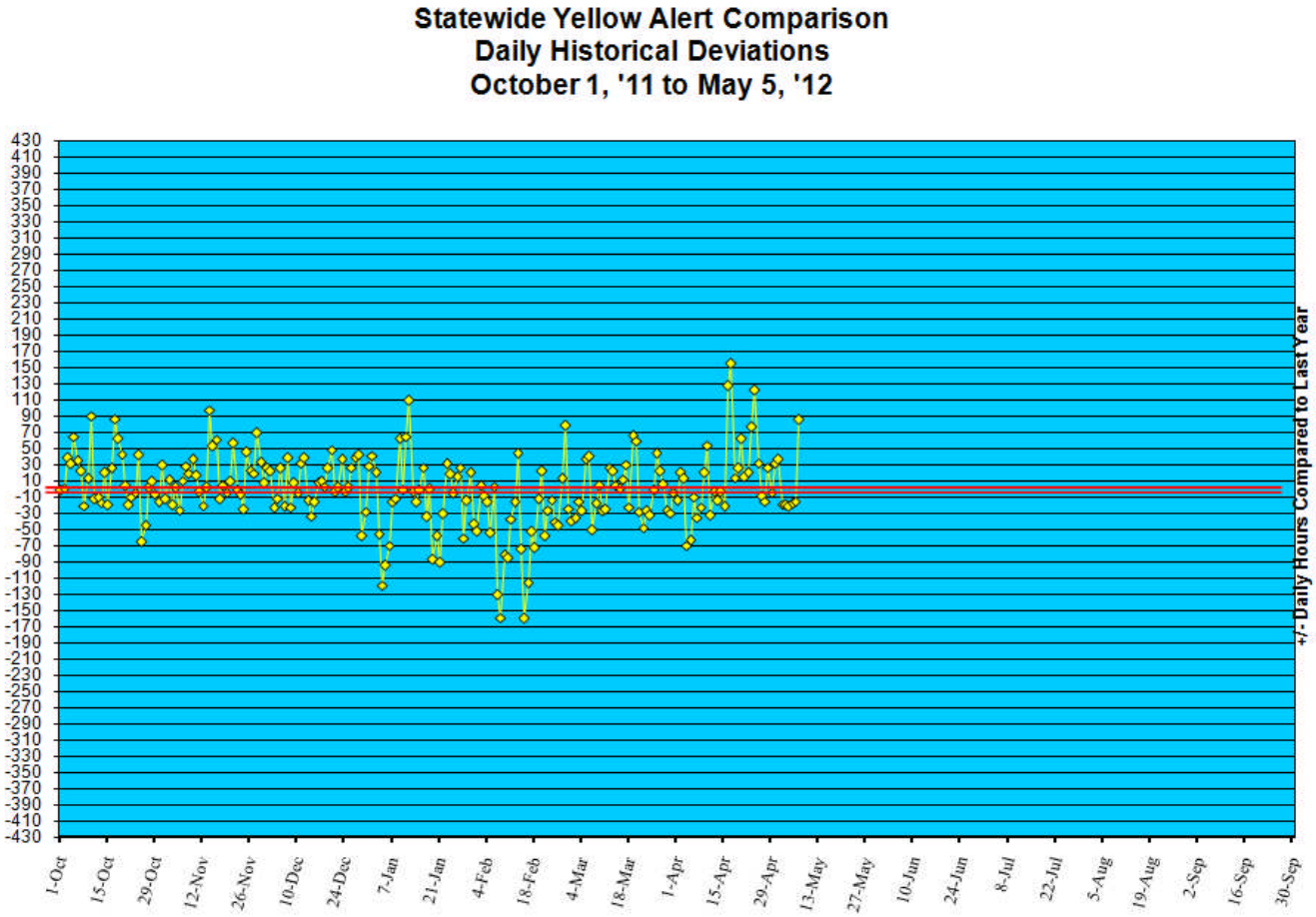
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 29 – May 5, 2012):	8	0
Prior week (April 15 – April 21, 2012):	9	0
Week#18, 2011 (April 30 – May 6, 2011):	12	0

5 outbreaks were reported to DHMH during MMWR Week 18 (April 29 – May 5, 2012)

2 Gastroenteritis outbreaks
1 outbreak of GASTROENTERITIS in a Nursing Home
1 outbreak of GASTROENTERITIS in an Assisted Living Facility

1 Foodborne outbreak
1 outbreak of GASTROENTERITIS/FOODBORNE associated with an Event

1 Respiratory illness outbreak
1 outbreak of INFLUENZA in an Assisted Living Facility

1 Rash illness outbreak
1 outbreak of Hand, Foot, and Mouth Disease in a Daycare Center

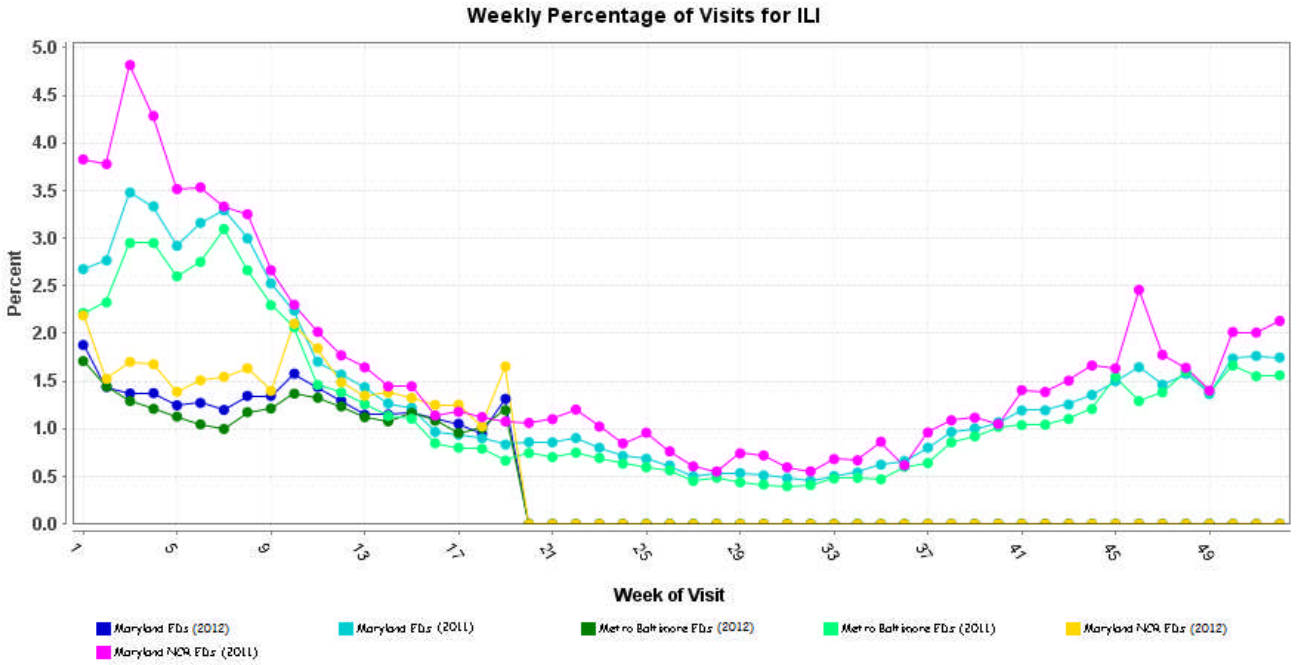
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 18 was: Sporadic Activity, Minimal Intensity.

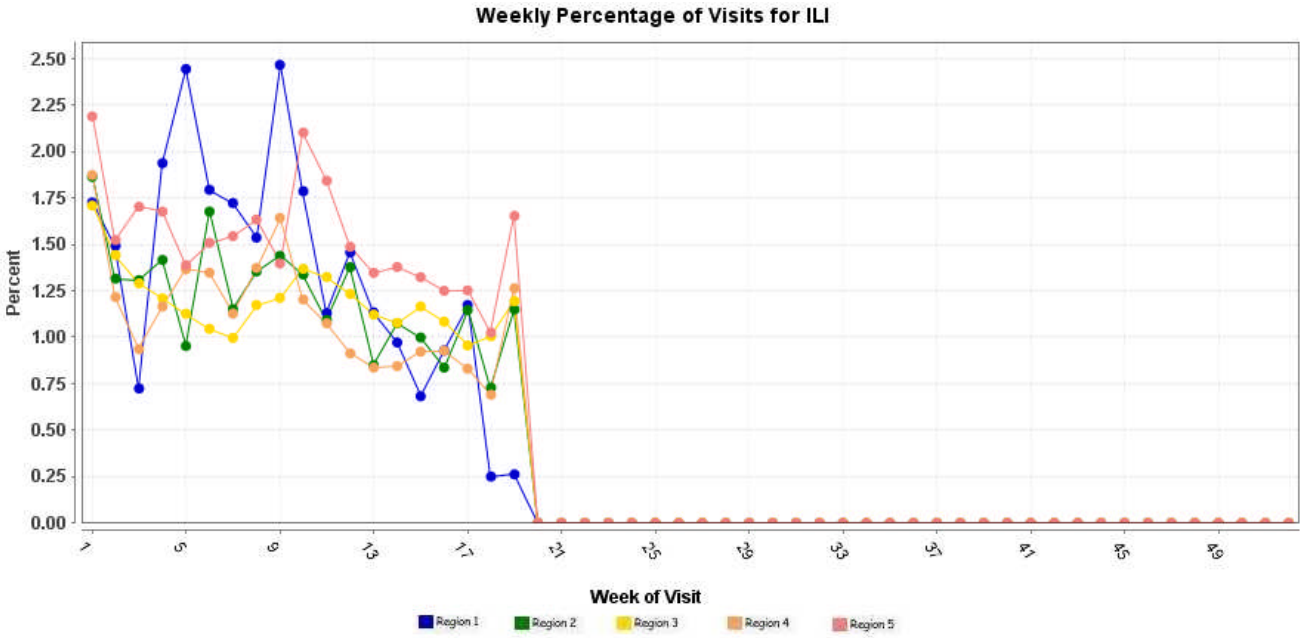
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



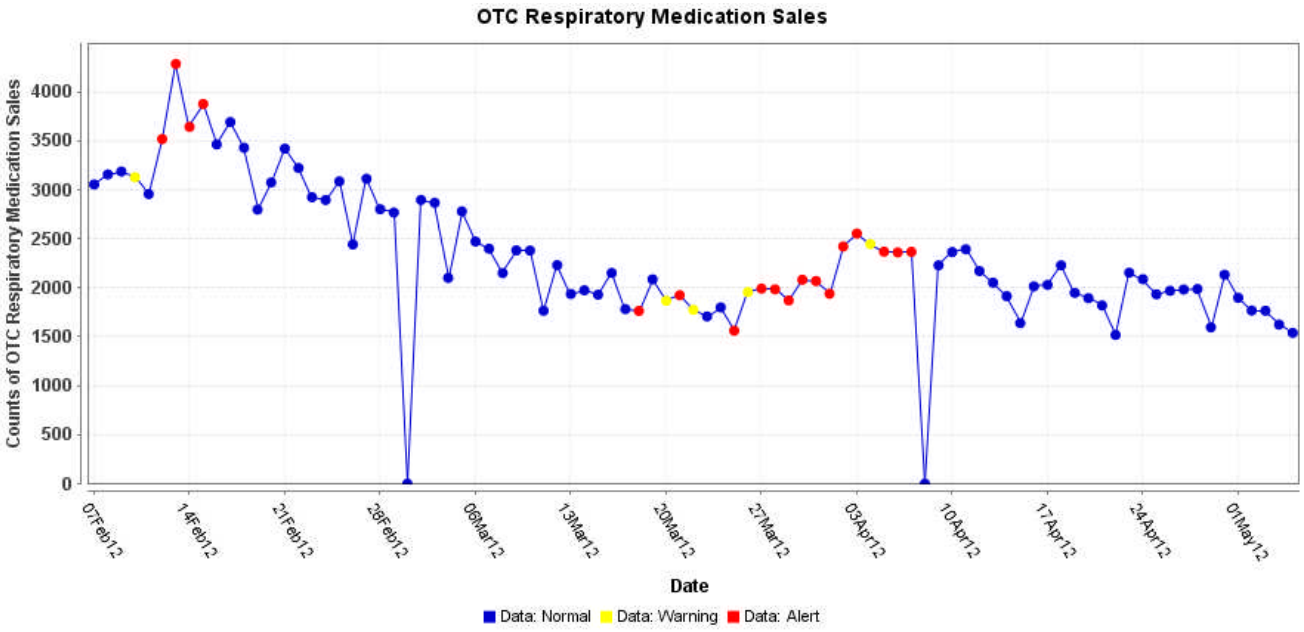
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of May 2, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 603, of which 356 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (INDONESIA): 2 May 2012, A 2-year-old boy died from bird flu [avian [A/H5N1) virus infection] last Friday [27 Apr 2012] in a state hospital in Riau, the Health Ministry has confirmed. A ministry team has investigated the boy's neighborhood and found that he may have had contact with quails' eggs because his parents sold them, the Ministry's directorate general for disease control and environmental health said in a press statement released on Tuesday night [1 May 2012]. The boy, a resident of Siak in Pekanbaru, was brought to a private clinic on 20 Apr 2012 after developing a fever on 17 Apr 2012, the statement said. He was then rushed to a private hospital on the night of 20 Apr 2012 because his condition had not improved, it said. On 21 Apr 2012, he was treated in another hospital identified only as EB, where doctors reported the case to the Riau Health Agency's post command. He was referred to a state hospital, identified only as AA. "[The boy's] condition deteriorated, and he died on 27 Apr 2012 at 11:45 p.m. at Hospital AA," the statement said. The total number of bird flu cases since 2005 now stands at 189, with 157 fatalities after the latest case. Director general Dr. Tjandra Yoga Aditama has reported the latest case to the World Health Organization, the statement said.

NATIONAL DISEASE REPORTS

E. COLI EHEC (OREGON): 30 April 2012, Oregon health officials suspect 2 more illnesses are part of a raw milk outbreak traced nearly 3 weeks ago to a farm near Wilsonville. William Keene, senior epidemiologist with Oregon Public Health, said the 2 adults had both consumed raw milk from Foundation Farm, including one who continued to drink it after being warned about the outbreak. Keene said one was sickened by *Campylobacter*, the other by *Cryptosporidium*, making 21 likely cases in the outbreak. Ten others were infected with *E. coli* O157. One of the worst foodborne pathogens, *E. coli* O157:H7 was on rectal swabs from 2 of the farm's 4 cows. Milk and manure from the farm also tested positive for the same bacteria. State epidemiologists did not test the cows or the environment for these other organisms, so they don't know for sure that the new cases are linked to Foundation Farm milk, but Keene said it's likely. "There is a long list of pathogens that people can get from raw milk," he said. Four children who drank the milk were hospitalized with acute kidney failure, which is associated with *E. coli* O157:H7. As of Fri 27 Apr 2012, they were still in the hospital, Keene said. Two of the patients, aged 14 and 13, are Portland area middle schoolers. The others are 3 and one years old. A 5th child from Lane County, who drank the milk while visiting relatives in the Portland area, was hospitalized and released. Foundation Farm, located on 5 acres in the Stafford area, had a herd-share operation for a least a year selling parts of cows to 48 families. In return, they had regular access to the raw milk. Health officials also interviewed most of the families. They were surprised that a person continued to drink the milk even after being advised that it was contaminated. Keene said the 2nd patient went looking for a new source. Just under 3 percent of Oregonians drink raw milk, according to a survey by Oregon Public Health. They tend to be passionate about it, despite public warnings. "We've documented yet another unfortunate incident where people missed the boat on one of the great advances in public health, pasteurization," Keene said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (NORTH CAROLINA): 1 May 2012, The number of salmonella cases continues to climb, despite the pull of a product linked to the bacterial outbreak. The Buncombe County Health Department announced today three more cases of salmonella Paratyhpi B infection, up from 34 Monday. As first reported by the Citizen-Times on Monday, a locally made fermented bean product had tested positive for the bacteria. Makers of Smiling Hara Tempeh have voluntarily called for the product to be taken from shelves of over 30 stores and restaurants. The bacteria can cause diarrhea that may be bloody, high fever, headache and abdominal pain. It can be more dangerous to infants, the elderly and people with compromised immune systems. Tests by the N.C. Department of Agriculture confirmed the bacteria was present in a sample collected from a routine inspection by the Food and Drug Protection Division, according to a statement from Smiling Hara Tempeh. Further testing is being done, it added. Chad Oliphant, who is charge of sales for Smiling Hara Tempeh, said salmonella was found in one batch and that they were waiting for more definitive lab results, including the exact bacteria species. "On everything else, it is all preliminary," Oliphant said. "We don't have any other results other than that. We are just withdrawing all of our products until we hear anything else." Smiling Hara Tempeh says consumers should not eat the product, which was made between Jan. 11 and April 11. It is in 12-ounce containers and has a best by date of July 11 through Oct. 25. Products can be returned to the place of purchase for a full refund, the statement said. The tempeh is sold to more than 30 local stores and restaurants, including Earth Fare supermarket and the Laughing Seed restaurant downtown, the website says. The company voluntarily pulled the product from stores and restaurants, county and state health officials said. No other commercial food makers are being looked at in connection with the county outbreak, including those that share a commercial kitchen with the company, said Brian Long, spokesman for the agriculture department, which regulates food production, on Monday. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS (COLORADO): 2 May 2012, The Pueblo City-County Health Department has temporarily closed All Seasons Catering, citing a variety of violations found after 35 people were sickened by food the company served at a luncheon on 24 Apr 2012. The health department said the illness was caused by *Clostridium perfringens* toxin found in a stool sample submitted by one of the sickened individuals. Based on interviews with everyone who became ill, the department found a statistical association in several foods that could have been the culprit: a beef-and-gravy dish, butter, tomatoes, and lettuce the caterer served during last week's Pueblo Community Health Center's annual meeting and luncheon. 80 people attended the event. All were interviewed about what they ate that day. Although the bacterium is present in small amounts in most healthy individuals' intestinal tracts, *C. perfringens* can produce a toxin that causes diarrhea and intestinal cramping when consumed in larger amounts. The resulting illness may lead to

serious complications among the elderly and very young. *C. perfringens* is one of the most common causes of foodborne illness in the USA, and is commonly found on raw meat and poultry and in food that is prepared too far in advance of consumption and kept at improper temperatures, according to a news release issued by the health department. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)
*Non-suspect case

INTERNATIONAL DISEASE REPORTS

LEPTOSPIROSIS (FRANCE): 4 May 2012, In its latest bulletin, the Cell for Interregional Epidemiology (CIRE), Indian Ocean, reported 38 cases of leptospirosis since the beginning of the year in Reunion. It is much more than the number of cases occurring in the same period last year (20 cases), but much less than that shown in the data from 2010 (52 cases), and finally, it is average for recent years. These seasonal outbreaks of leptospirosis are probably related to the rainfall. As emphasized by CIRE, "The rains were late this year, averaging three times more in March this year, than in March last year. "This illness is transmitted by the urine of animals infected with *Leptospira* [bacteria] (rats, dogs, and tangue [AKA tenrec]). Bacteria can remain several months in a humid and hot environment. Carried by the water, the bacteria will then enter (the body of humans or animals) through mucous membranes or wounds. Four to fourteen days after infection, a Dengue-like syndrome will appear (high fever, muscle aches, joint pain, and headache). The disease may progress to involve the liver causing jaundice, kidneys, lungs, meninges, and in 20% of cases it is complicated by a hemorrhagic syndrome. Nevertheless, the patients, mostly men aged between 14 and 74, were all hospitalized for a period ranging from one to 32 days. Nearly half of them even made an ICU stay. "The cases are spread throughout the island with a predominance in the north-east of the department with 43% of cases in the east, 24% in the north, 18% in the west and 14% in the south", CIRE said. Contrary to popular belief, the sugar cane cutters are not the only people likely to be affected by leptospirosis. Nine people were infected through outdoor recreation, five out of activities related to living and five others in recreational freshwater. To avoid contamination, it is recommended to protect oneself by wearing boots and gloves in a hazardous activity (agriculture, livestock, gardening, freshwater fishing, hunting). It is also best to avoid swimming when one has sores, walking in fresh water, and simply walking barefoot or in open shoes on the muddy ground. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)
*Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey
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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable